2016 Annual Drinking Water Quality Report

(Consumer Confidence Report)

Sheppard Air Force Base

WATER SOURCES: The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground it dissolves naturally-occurring minerals and in some cases radioactive material and can pick up substances resulting from the presence of animals or human activity. Contaminants that may be present in source water before treatment include: microbes, inorganic chemicals, pesticides, herbicides, radioactive isotopes, and organic chemical contaminants.

Public Participation Opportunities

To learn about future public meetings concerning your drinking water, or to request to schedule one, please call us.

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OUR DRINKING WATER Meets or Is Better Than All Federal (EPA) Drinking Water Requirements

This report is a summary of the quality of the water we provide our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

Special Notice

Required language for ALL community public water supplies:

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly or immunocompromised persons such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care provider. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline at (800) 426-4791.

Where do we get our drinking water?

Our drinking water comes from the following surface water sources: Lake Kickapoo, Wichita Falls secondary terminal reservoir, and Lake Arrowhead. Sheppard AFB purchases water from the City of Wichita Falls and is therefore considered a consecutive water system. Wichita Falls provides most monitoring and treatment. Bioenvironmental Engineering monitors for contaminants and hazards specific to our distribution system. For more information on source water assessments and protection efforts, please contact us.

It is possible that ALL drinking water may contain contaminants.

When drinking water meets federal standards there may not be any health based benefits to purchasing bottled water or point of use devices. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800) 426-4791.

Secondary Constituents

Many un-harmful constituents often found in drinking water (such as calcium, sodium, or iron) can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, and monitored by the EPA. These constituents, though not required to be reported in this document, may greatly affect the appearance and taste of your water.

About the Following Pages

The U.S. EPA requires water systems to test for up to 97 contaminants. The pages that follow list all the federally regulated or monitored contaminants which have been found in your drinking water.

Definitions

Maximum Contaminant Level (MCL)
The highest permissible level of a contaminant in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG)
The level of contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL)
The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG)
The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

Treatment Technique (TT)
A required process intended to reduce the level of a contaminant in drinking water.

Action Level (AL)
The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

ABBREVIATIONS

NTU - Nephelometric Turbidity Units
(a measure of suspended particles in the water)
MFL - Million fibers per liter
(a measure of asbestos)
pCi/L - Picocuries per liter
(a measure of radioactivity)
ppm - Parts per million
ppb - Parts per billion
µg/L - Micro grams per liter
µOhms/cm - Measure of dissolved solids in the water

OoCysts/L- Total number found in one liter of water

Cysts/L -Total number found in one liter of water

The following contaminants are monitored at points throughout the distribution system.

Inorganic Contaminants

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contaminant
Nitrite (measured as Nitrogen)	2015	0.07	0-0.065	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrate (measured as Nitrogen)	2016	0.28	0.17-0.28	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Organic Contaminants testing waived, not reported, or none detected

Maximum Residual Disinfectant Level

Systems must complete and submit disinfection data on the Disinfection Level Quarterly Operating Report (DLQOR). On the CCR report, the system must provide disinfectant type, minimum, maximum and average levels. The monthly average disinfectant level is used to determine compliance with the MRDL.

Disinfectant	Year	Annual Average Level	Minimum Sample Level	Maximum Sample Level	MRDL	MRDLG	Units	Source of Disinfectant
Chloramine Residual	2016	2.69	0.0	4.3	4.0	< 4.0	mg/L	Disinfectant used to control microbes

Disinfectant Byproducts

Contaminant	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violations	Likely Source of Contaminant
Haloacetic Acids (HAA5)	2016	29	13.4-35.5	No goal for the total	60	ppb	N	Byproduct of drinking water disinfection.
Trihalomethanes (TTHM)	2016	38	24.2-84.2	No goal for the total	80	ppb	N	Byproduct of drinking water disinfection.

Lead and Copper

Contaminant	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violations	Likely Source of Contaminant
Copper	09/28/2015	1.3	1.3	0.0847	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	09/28/2015	0	15	1.9	1	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Required Additional Health Information for Lead

"If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. This water supply is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water "

Turbidity

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches				
	Limit (Treatment Technique)	Level Detected	Violation	Likely source of Contamination
Highest single measurement	1 NTU	0.44 NTU	N	Soil runoff
Lowest monthly % meeting limit	0.3 NTU	98%	N	Soil runoff

Coliform Bacteria

Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are hardier than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption.						
Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive Samples	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contaminant
0	1 positive monthly sample	1	-	0	N	Naturally present in the environment

Regulated Contaminants

Contaminant	Collection Date	Highest level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contaminant
Antimony	2016	0	0-0	6	6	ppb	N	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic	2016	0	0-0	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	2016	0.025	0.017-0.025	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium	2016	0.63	0.4-0.63	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits
Cyanide	2016	7.22	0-7.22	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride	2016	0.71	0.59-0.71	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Selenium	2016	1.2	0-1.2	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines

Radioactive Contaminants

Contaminant	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violations	Likely Source of Contaminant
Beta/photon emitters	2015	9.2	5.6-9.2	0	50	pCi/L*	N	Decay of natural and man-made deposits
***Combined Radium 226/228	06/20/2011	1	1-1	0	5	pCi/L	N	Erosion of natural deposits.
Uranium	2015	1.3	0-1.3	0	30	ug/l	N	Erosion of natural deposits.

*EPA considers 50 pCi/L to be the level of concern for beta particles.

Violations Table

Total Coliform			
Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.			
Violation Type	Violation Begin	Violation End	Violation Explanation
Monitoring (TCR), Repeat Major	01/01/2016	01/31/2016	We failed to collect follow-up samples in response to finding total coliform bacteria in a routine sample. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
Monitoring (TCR), Routine Minor	03/01/2016	03/30/2016	We failed to complete all the required tests of our drinking water for the contaminant and period indicated.

WATER CONSERVATION TIPS

Turn water off when shaving and brushing your teeth.
Run only full loads in washing machine and dishwasher
Adjust lawn sprinklers to water the grass not the street.
Take shorter showers. Turn water off while lathering up.
Use the garbage can rather than the garbage disposal.
Water is a natural resource not to be wasted.